

September 27, 2004

Marlene H. Dortch, Secretary
Office of the Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: Petition for Waiver of OFDM UWB Measurement Procedures, ET Docket No. 04-352

Dear Ms. Dortch:

The Multi-band OFDM Alliance Special Interest Group (MBOA-SIG) is requesting a waiver of certain FCC measurement procedures for ultra-wideband (UWB) devices. MBOA-SIG is creating a multi-band orthogonal frequency division multiplexing (MB-OFDM) standard using UWB. Time Domain Corporation (TDC) is writing in support of this waiver.

As a leader in the emerging UWB industry, TDC is developing UWB devices to meet important needs of the US military, and also collaborating with private companies to enable UWB products for consumer markets. TDC has worked with the FCC for over 10 years on regulations that govern the use of UWB technology. TDC currently offers FCC-certified through wall radar and evaluation radio products for sale. TDC is not a member of the MBOA-SIG.

At present, the Commission requires that band sequenced MB-OFDM systems be measured with pulse "gating" procedures. The application of pulse gating measurement techniques to band sequenced systems causes uncertainty about the use of band sequencing techniques for UWB systems. The use of band sequencing techniques was not anticipated in the original UWB work of Time Domain and the Commission. Time Domain is concerned that band sequencing techniques may become important in the future. Given their emphasis on high data rate applications, it is reasonable for the MBOA-SIG to select OFDM modulation for use with band sequencing. Time Domain feels that OFDM is not necessary to exploit the potential benefits of band sequencing UWB. Time Domain has always felt that the ultra low powers radiated by UWB devices provide substantial protection to other spectrum users. Beyond the low power of UWB, the extra dimension of modulation agility afforded by band sequencing could prove useful to minimize even further the potential for interference caused by UWB to other systems.

Time Domain agrees fully with the FCC Office of Engineering and Technology when they indicated that any such clarification or waiver should depend on whether band sequencing systems could be shown to cause no greater threat of harmful interference to licensed services than pulsed UWB systems. The band sequencing modulation proposed by the MBOA-SIG involves band re-use on a one microsecond repetition interval. Time Domain believes that with this rate, band sequencing systems pose no greater threat of harmful interference than our current pulsed UWB systems permitted under the FCC's rules.

TDC has keen interest in all aspects of UWB testing methods and procedures. The entire industry will potentially benefit from clarification of rules for band sequencing. As always, TDC stands ready to help the Commission in any way we can.

Sincerely,

William L. Webb, III
President and CEO
Time Domain Corporation